

ABSTRACT

A method of separating a blood clotting protein from a mixture of blood clotting protein and at least one contaminant, the method comprising:

(a) placing a blood clotting protein and contaminant mixture in a first solvent stream, the first solvent stream being separated from a second solvent stream by a first electrophoretic membrane; (b) selecting a buffer for the first solvent stream being a pH greater than the isoelectric point of the blood clotting protein ; (c) applying an electric potential between the first and second solvent streams causing movement of at least some of the contaminants through the membrane into the second solvent stream while the blood clotting protein is substantially retained in the first solvent stream, or if entering the membrane, being substantially prevented from entering the second solvent stream; (d) optionally periodically stopping and reversing the electric potential to cause movement of any blood clotting protein having entered the membrane to move back into the first solvent stream, wherein substantially not causing any contaminants that have entered the second solvent stream to re-enter first solvent stream; and (e) maintaining step (c) until the first solvent stream contains the desired purity of blood clotting protein substantially mimicking the characteristics of natural blood clotting protein.